Mrs. Harry Sockman (also Mr. Medille Sockman) observed the funnel approaching from the west and telephoned her daughter who lives about ¼ mile west of her and about 1 mile southeast of the Jones farm. The daughter then saw the funnel approaching, also heard the roar, and went to the storm celler. She described the funnel as exactly funnel-shaped and extending upwards "high into the sky." A shed, some 30 yards away from the house, was demolished, along with other minor damage, but there was no damage to the house. All debris was strewn to the east.

The buildings of the Steve Tully farm to the east-southeast, suffered severe damage. Several windows on the south were blown outward, and a lamp table was thrown into the yard. Most of the debris was thrown eastward, but with some debris 50 yards to the north (left) of the apparent path. Bessie Tulley left Cameron in a "heavy rainstorm," drove south on U. S. 69 until she saw the two funnels near the intersection of this highway with Missouri 121 (near the Middaugh farm). Here she waited until the two tornadoes moved eastward across the highway (69) and then she could see only one tornado. A little later (she could not estimate the time) she drove on to her farm some five miles to the east. She estimated that they drove 40 m. p. h. but, even so, the tornado remained well ahead of the car.

Additional damage was reported farther eastward by persons who were interviewed and these include reports of tornado occurrences near Kingston, Mooresville, and Chillicothe. If those were tornadoes, the path of the main tornado south of Cameron might have continued to these other localities.

Interviews and observations in connection with these storms brought out the following interesting points: (1) Two funnels were observed but only one track was noted and only one tornado was observed to reach the ground and cause damage. (2) The roar was heard by several persons. (3) A whirling motion of dust and debris was noted by several persons. (4) Evidence of rotary motion in damage or debris was noted at only the following three locations: *a*. Debris from a shed on the Middaugh farm was thrown up to 200 yards north and west of the original location while the tornado was following a track from about 240°; *b*. Two trees near the Middaugh farm were broken off toward the south; *c*. Debris on the fence of the Jones farm indicated a strong westerly wind along a north-south fence which covered an east-west fence along which debris was driven in from the north. (5) With these three exceptions *all* debris, broken trees, and branches indicated a strong westerly wind. (6) The path width was never wider than 250 yards and generally less. The length investigated was about 6 miles and perhaps was as much as 30 miles. Some "skipping" was noted throughout the length, although some of this could be a consequence of a track over open fields. (7) All witnesses stated that the main thunderstorm cell was to the north where rainfall amounts were generally given as 1 inch or more, starting about 2 or 3 miles north of the tornado track. One witness, who was perhaps in the best position of any, stated that the two tornado funnels were near the southwest quadrant of the thunderstorm cell. (8) No rain or hail preceded the tornado. Light rain ("settled the dust"; "less than a quarter inch." etc.) followed the tornado by about 10 minutes. Some hail ranging in size from ¾" to 1¼" followed the tornado by about 10 minutes. (9) All observers gave the time as either "around 5 o'clock" or 5:10 p. m. (10) Witnesses could not state definitely whether or not the funnels were attached to a cloud. (11) Thunderstorms preceded and followed the tornado. (12) All persons described the afternoon as "windy" but said that before and immediately after the tornado, the wind was light from the south or southwest. (13) Persons who saw the funnels or observed rotary motion could not describe the direction of rotation. (14) All persons who were in the vicinity of the funnel itself stated that they observed no noticable temperature change as the tornado passed by.

[Editor's note:—In addition to the above we have received two eye-witness accounts which follow. The first observer located the storm as 4 miles south of Cameron at Clinton School and thence eastward. He was located about 2½ miles north of the storm and about 1 mile east. He reported seeing funnel at 1710 CST hanging from the cloud base and touching the ground. Hail of ½ to 2 inches in diameter fell over a "large area" during the storm. Largest hailstones were observed before the storm's passage and to the left of its subsequent path. Excessive rain (1.1 inches in 10 min.) fell before and during the period of most intense winds and to the left of the path of maximum wind intensity. This observer reported no excessive lightning or thunder, but heard an unusual, loud noise before and during the storm's passage but after the heaviest rain when the storm had moved to the east. It sounded like "hail on farm buildings farther east though it was louder and more intense."

[The second observer reported the storm location as 8 miles southwest of Hamilton which is directly east of Cameron. At about 1700 CST he saw a funnel extending from the cloud base and touching the ground. It moved from west to east and had a counterclockwise rotation. The pattern of debris was also counterclockwise. Hailstones three-fourths of an inch in diameter, fell over an area he estimated as 6400 square miles during the passage of the storm. The hailstones were largest after passage and to the left of the path. He estimated that two inches of rain fell in one hour, the heaviest period of rain being after the most intense winds and to the left of the path of maximum wind. This observer reported no unusual lightning but unusually loud and frequent thunder. No other unusual noises accompanied the storm. Both observers reported observing the storm until 1730 CST.]

Excelsior Springs Tornadoes.—The storm damage in and near Excelsior Springs evidently resulted from two tornadoes and possibly a third. The first occurred east of town and damaged five farm buildings along the County Line Road. One person who was interviewed observed the funnel and heard the characteristic roar at 1740 CST. Several barns and sheds were demolished and the debris lay in a straight line, apparently along the path. However, these sites were not investigated in detail. Also, there were reports of damage as far east as Rayville, 9 miles to the east.

The second, and most destructive tornado, struck in the center of Excelsior Springs at 1800 CST. The principal damage was to the Lambert Lumber Yard where the roof (160 feet long) was blown off and debris scattered to the south. Large pieces from this roof were carried two blocks away and over a 2-story school building. Some 35 windows of a motel across the street were damaged by flying debris. Two cars and a dump-truck, parked on the west side of the lumber yard, were overturned and badly damaged. A 2 x 6 plank, about 10 feet long, was rammed through the dual tires on the rear of the truck. After the storm, the truck was on its side with about 8 feet of the 2 x 6 extending vertically upward.

While the lumber yard was located near the center of the city, no other damage of consequence was noted except a plate glass window in a filling station was exploded outward and one stop sign was twisted off. Mr. Walter Armstrong, manager of the Lambert Lumber Yard, heard the roar which he identified as a characteristic of tornadoes (he had heard this roar on two previous occasions). One filling station attendant, near the the lumber yard, was reported to have observed the funnel itself. Light rain fell in the vicinity during the tornado and several persons reported that the dark thunderstorm clouds were to the north. Hail, diameter up to three-fourths of an inch, fell about 15 minutes after the tornado occurrence.

Another (possibly the same one as described above) storm occurred about 2 miles southwest of town around 1800 CST. This path was short and horseshoe-shaped, and the storm moved to the southeast. A garage and barn were smashed. There were no reports of a funnel or roar in this area; the information here was given by Marvin Crowley, a reporter for *The Daily Standard*.

Severe Local Storms forecast No. 50 was issued at 1210 CST this date and was as follows: ". . . most intense area along and 50 either side line from 30 west Topeka to Ottumwa, Iowa, with scattered tornadoes expected this area from 1400c to 2200c. . . ." This forecast was known to most of the persons interviewed and several expressed their appreciation of the Weather Bureau's "twister forecasts." Protective measures were generally to keep watching for unusually dark thunderstorms or funnel clouds and take cover after the funnel was sighted.—*Robert G. Beebe, SELS Center, WBAS, Kansas City, Mo.*

CORRECTION

MONTHLY WEATHER REVIEW, vol. 83, No. 3: In table of contents on front cover, author of "The Weather and Circulation of March 1955" is Jay S. Winston.

345634—55——2

U. S. GOVERNMENT PRINTING OFFICE: 1955

Blank page retained for pagination